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(54) X-RAY WINDOW

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(57) Abstract:

**PURPOSE:** To improve the X-permeability and the airtight characteristic of an X-ray window and to facilitate its production by laminating a silicone nitride layer and a polyamide layer alternately; by placing silicone nitride at both sides, and by reinforcing them with a support frame.

**CONSTITUTION:** Silicone nitride films 21 and 22 are formed on both surfaces of a substrate 11. A resist 31 is applied on the films, and a protective film pattern 31' is formed selectively at desired areas. Then, a pattern 22', which is made of a part of the silicone nitride film 22, is formed by plasma etching or the like so as to remove resists 31 and 31'. Next, a polyamide layer 41 and a silicone nitride film 5a, are formed on the surface of the silicone nitride film 21. Finally, the predetermined area of the substrate 11 is removed in etching process to obtain an X-ray window while the silicone nitride film 51 is under protection, and the silicone nitride film pattern 22' is serving as a protecting mask.

